

# CEREAL RUST BULLETIN

Report No. 6

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Issued by:

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- Wheat leaf rust is more severe than last year throughout the central Great Plains.
- Wheat stripe rust is light and scattered throughout the central Great Plains.
- Traces of wheat stem rust have been found in central Kansas.

The small grain harvest is underway from southern South Carolina to southern Oklahoma. Winter wheat is at normal maturity throughout the central plains. Small grain planting is completed throughout most of the northern grain growing area and development of earlier planted small grains is slightly behind average maturity.

**Wheat stem rust.** During late May, traces of stem rust were found on wheat in a field and in a plot of the cultivar 2137 in central Kansas. Wheat stem rust is lighter than last year throughout the central plains area of the U.S.

**Wheat leaf rust.** During the last week in May, leaf rust was severe in plots and fields of susceptible cultivars from central Kansas to west central Missouri (Fig. 1). In fields of Jagger at the late berry stage in south central Kansas, 60% severities were found, while in fields of Jagger in northeast Kansas, 5% severities were observed on flag leaves. In central Kansas varietal plots, rust severities ranged from trace to 60%. In southern Kansas, the hot temperatures during the later part of May slowed rust development and since the crop was near maturity, losses due to leaf rust will be reduced. In late May, in the plots at Lincoln, Nebraska, leaf rust was light. The southern rust locations will provide much more leaf rust inoculum for the northern wheat growing area than last year.

In late May, 40% leaf rust severities were observed on *Aegilops cylindrica* (goatgrass) growing in the roadsides in north central Oklahoma and south central Kansas. Last year in the same areas, stripe rust severities of 40% were observed on goatgrass.



In late-May, light leaf rust was reported in Blacksburg (western Virginia) plots.

From leaf rust collections made in early April, the following races were identified: Central Texas - MBDS, MGDS, MCDS, THBS, THRJ, TGDS, TLGJ, TLHJ and TNGS; Louisiana - MCRK, TLGJ and TNRJ; Georgia - PBHK and TLGD. Races MBDS, MGDS, TGDS are virulent to Jagger which has *Lr17*. MGDS, TGDS, THBS and THRJ are virulent to cultivars with *Lr16*. TLGD, TLGJ and TLHJ are virulent to cultivars with *Lr9*. TNRJ and TNGS are virulent to cultivars with *Lr9* and *Lr24*.

**Wheat stripe rust.** In late May, traces of stripe rust were found in central and southern Kansas plots and fields (Fig. 2). There was much less stripe rust in Oklahoma and Kansas in 2002 than in 2001. In both 2001 and 2002, cool spring and nighttime temperatures in the 40s and 50s, plus humid weather were conducive for stripe rust development throughout the Great Plains, but the rust inoculum load from Texas was much less which accounted for much less rust development in 2002.

In late May, traces of stripe rust were found in wheat plots in east central Nebraska.

In west-central Missouri, 40% stripe rust severities were observed on flag leaves of soft red cultivars at the late berry stage. In 2002, stripe rust was more severe in the soft wheat area growing areas of Arkansas and Missouri. This year conducive weather conditions plus stripe rust coming from infection sites in Louisiana lead to increased stripe rust in Missouri and Arkansas.

During the third week in May, stripe rust foci were found in 3 plots at the Southwest Purdue Ag Center in Knox County, Indiana. The wheat was in the early milk stage. The rust was most severe on the flag leaves, so it was probably a fairly recent introduction.

In late May, wheat stripe rust was more severe than normal in the plots at the Blacksburg, Virginia experiment station.

By late May, 20-30% severities were observed on susceptible cultivars in southeastern Washington fields and plots. Winter wheat ranged from boot to heading stage which is one to two weeks later than normal.

**Oat stem rust.** There have been no new reports of oat stem rust in the U.S. since the report in mid-May when it was severe in oat plots and fields in central Texas.

**Oat crown rust.** There have been no new reports of oat crown rust since CRB #5.

**Buckthorn.** In late May, crown rust aecial infections were moderate to severe at the St. Paul, Minnesota buckthorn nursery. Uredinial infections were observed on oat in spreader rows in the nursery on June 3. The good moisture and warm temperatures have been ideal for infection. The buckthorn at the University of Minnesota Experiment Station at Lamberton have more crown rust infections than observed in recent years. Relatively light aecial infections were found on buckthorn bushes at Red Wing, MN and Grantsburg, WI in late May and early June, respectively.



**Barley stem rust.** There have been no more reports of barley stem rust since rust was found in early April in southern Texas plots.

**Barley leaf rust.** There have been no new reports of barley leaf rust since CRB #5.

**Stripe rust on barley.** During the third week in May, traces of barley stripe rust were found on winter barley near Pendleton, Oregon.

**Barley crown rust.** There have been no reports of crown rust on barley yet this year.

**Rye leaf rust.** In late May, moderate leaf rust was observed on rye in a field in south central Kansas.

**Rye stem rust.** There have been no reports of rye stem rust this year.

**Stem rust on barberry.** In late May, stem rust aecial infections were found on susceptible barberry bushes in southeastern Minnesota.



Fig. 1. Leaf rust severities in wheat fields -June 5, 2002

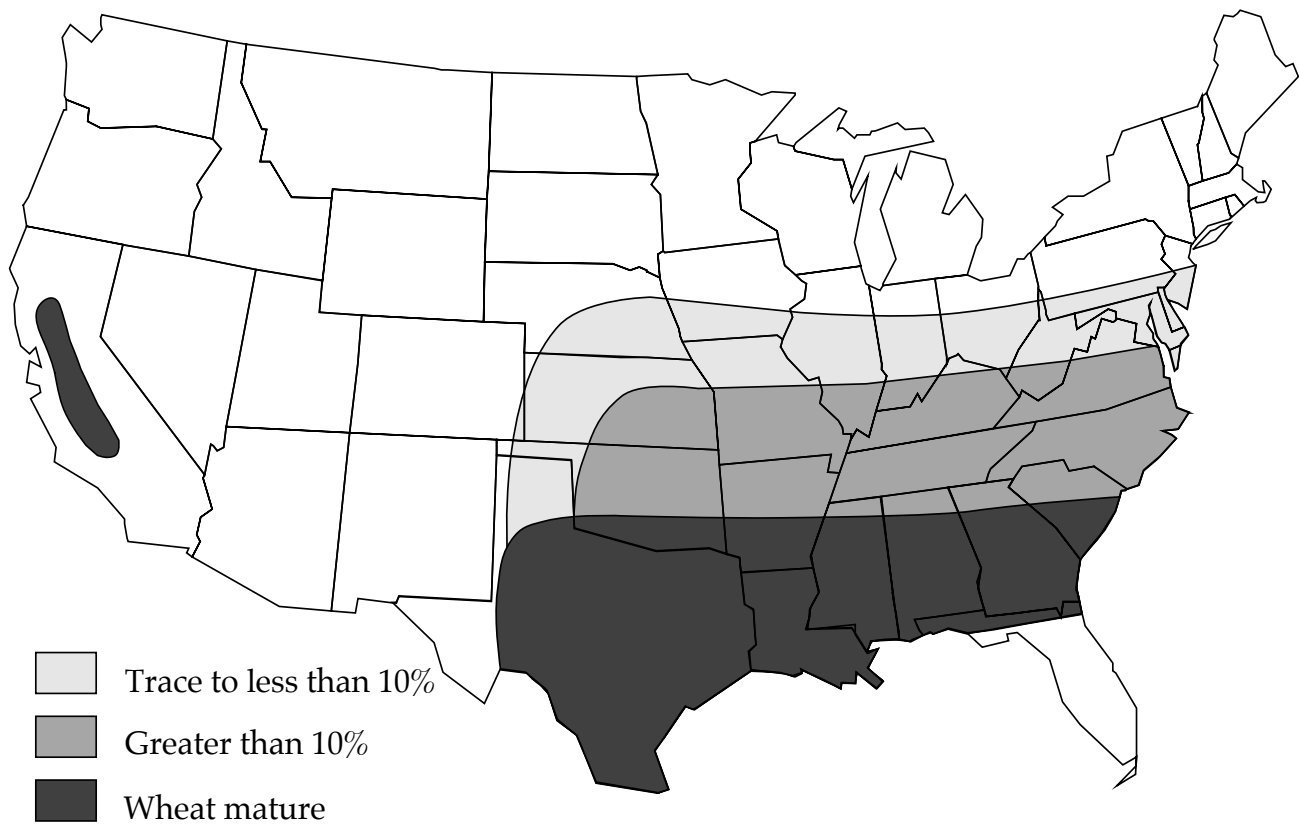


Fig. 2. Stripe rust severities in wheat fields - June 5, 2002

